

WHAT IS CLAIMED IS:

1. A solid state image pickup device,  
comprising:

solid state image pickup means for optically  
5 reading an image and converting the image into an  
electrical image signal;

memory means for storing a smear reference  
amount of the solid state image pickup means; and

calculation means for calculating a physical  
10 amount proportional to a received light amount of the  
solid state image pickup means based on an output of  
the electrical image signal from the solid state  
image pickup means,

wherein the electrical image signal is  
15 corrected based on the smear reference amount stored  
in the memory means and an output of the calculation  
means.

2. A solid state image pickup device according  
20 to claim 1, wherein the smear reference amount is  
acquired by calculating based on a smear amount and  
the physical amount proportional to the received  
light amount when a light source is turned on.

25 3. A solid state image pickup device according  
to claim 1, wherein the smear reference amount is  
acquired by dividing a smear amount by the physical

amount proportional to the received light amount when a light source is turned on.

4. A solid state image pickup device according  
5 to claim 2 or 3, wherein the smear amount is a dummy pixel output value when the light source is turned on.

5. A solid state image pickup device according  
to claim 2 or 3, wherein the smear amount is an  
10 average value of dummy pixel output values when the light source is turned on.

6. A solid state image pickup device according  
to claim 2 or 3, wherein the smear amount is acquired  
15 by subtracting one of an optical black pixel output value and an pixel output value of an image taking region when the light source is turned off, from an optical black pixel output value when the light source is turned on.

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7. A solid state image pickup device according  
to claim 2 or 3, wherein the smear amount is acquired  
by subtracting one of an average value of optical  
black pixel output values and an average value of  
25 pixel output values of the image taking region when the light source is turned off, from an average value of optical black pixel output values when the light

source is turned on.

8. A solid state image pickup device according  
to claim 1, wherein the physical amount proportional  
5 to the received light amount is one of a sum and an  
average value of pixel outputs of the image taking  
region of the solid state image pickup means.

9. A solid state image pickup device according  
10 to claim 1, wherein the solid state image pickup  
means includes a CCD linear sensor.

10. A method of correcting a smear of a solid  
state image pickup device, comprising the steps of:  
15 storing a smear reference amount of the solid  
state image pickup means in memory means;  
reading an image signal by a solid state image  
pickup element;  
calculating a physical amount proportional to  
20 an amount of received light of the solid state image  
pickup means based on an output of the electrical  
image signal from the solid state image pickup means;  
and  
correcting the electrical image signal read  
25 based on the smear reference amount stored in the  
memory means and an output based on the calculated  
result.

11. A method of correcting a smear of a solid  
state image pickup device according to claim 10,  
wherein the storing step comprises a step of  
calculating a smear reference amount based on a smear  
5 amount and the physical amount proportional to the  
received light amount when a light source is turned  
on.

12. A method of correcting a smear of a solid  
10 state image pickup device according to claim 10,  
wherein the storing step comprises a step of dividing  
the smear amount by the physical amount proportional  
to the received light amount when the light source is  
turned on.

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13. A method of correcting a smear of a solid  
state image pickup device according to claim 10,  
wherein the storing step comprises a step of  
calculating an average value of outputs of dummy  
20 pixels generated when the light source is turned on.

14. A method of correcting a smear of a solid  
state image pickup device according to claim 10,  
wherein the storing step comprises a step of  
25 subtracting one of an optical black pixel output  
value and a pixel output value of the image taking  
region when the light source is turned off, from an

optical black pixel output value when the light source is turned on.

15. A method of correcting a smear of a solid  
5 state image pickup device according to claim 10,  
wherein the storing step comprises a step of  
subtracting one of an average value of optical black  
pixel output values and an average value of pixel  
output values of the image taking region when the  
10 light source is turned off, from an average value of  
optical black pixel output values stored after the  
light source is turned on.

16. A method of correcting a smear of a solid  
15 state image pickup device according to claim 10,  
wherein the reading step comprises a step of  
calculating one of a sum and an average value of  
pixel outputs of the image taking region of the solid  
state image pickup means.

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17. A recording medium that stores the  
procedure of smear correction according to any one of  
claims 10 to 16.